

CLAIMS

What is claimed is:

1 1. A hybrid computer/human computation method comprising:
2 a computer system receiving a first and a second subtask of a task;
3 the computer system dispatching the first subtask to a first human for
4 performance by said first human;
5 the computer system receiving a first result from said first human for said first
6 subtask; and
7 the computer system generating a result for said task based at least in part
8 on said first result.

1 2. The method of claim 1, wherein
2 the method comprises said computer system decomposing a task to be
3 performed into at least a first and a second subtask, in lieu of said computer system
4 receiving a first and a second subtask of a task.

1 3. The method of claim 1, wherein
2 the method further comprises the computer system dispatching said second
3 subtask to a second human for performance by the second human, and the
4 computer system receiving a second result from the second human for said second
5 subtask; and
6 the computer system further bases its generation of the result for said task on
7 said second result.

1 4. The method of claim 3, wherein
2 said task further comprising a third subtask, and the method further
3 comprises the computer system receiving and performing said third subtask
4 producing a third result; and
5 the computer system further bases its generation of the result for said task on
6 said third result.

1 5. The method of claim 1, wherein
2 the method further comprises the computer system performing said second
3 subtask producing a second result; and
4 the computer system further bases its generation of the result for said task on
5 said second result.

1 6. The method of claim 1, wherein said human is one of college educated, at
2 most high school educated, at most elementary school educated, and not formally
3 educated.

1 7. The method of claim 1, wherein said subtask is one of text, speech, sound,
2 and images related operations.

1 8. The method of claim 1, wherein said result is one of text, numbers, tuples,
2 and sound.

1 9. The method of claim 1, wherein said task is one of text classification, image
2 comparison, image processing, speech comparison, speech recognition, conversion
3 of speech into text, and comparison of music samples.

1 10. The method of claim 1, wherein said task is associated with one or more
2 attributes, wherein the attributes include an accuracy attribute, a security attribute, a
3 timeout attribute, a maximum time spent attribute, a maximum cost per task
4 attribute, and a maximum total cost attribute.

1 11. The method of claim 1, wherein said task is associated with one or more
2 attributes, and said attributes include an accuracy attribute.

1 12. The method of claim 11, wherein the method further comprises dispatching
2 said first subtask to $N1 - 1$ additional humans to perform said subtask, and said
3 accuracy comprises a selection of one of majority governs, and at least $N2$ agreed
4 answers, wherein $N2$ and $N1$ are integers, with $N2$ greater than $N1$.

1 13. The method of claim 12, where the method further comprises tracking the
2 accuracy of the humans.

1 14. The method of claim 12, where said generation of the result further takes into
2 consideration the accuracy of the humans.

1 15. The method of claim 1, wherein said task is associated with one or more
2 attributes including a security attribute, and said security attribute comprises a
3 selection of one of a "strict" security level, a "lax" security level, and "no" security
4 level.

1 16. The method of claim 1, wherein said task is associated with one or more
2 attributes, and said attributes include a "maximum time" attribute specifying a

3 maximum amount of time to be spent by an assigned human to perform said first
4 subtask.

1 17. The method of claim 1, wherein said task is associated with one or more
2 attributes, and said attributes include a maximum cost per task attribute.

1 18. The method of claim 1, wherein said task is associated with one or more
2 attributes, and said attributes include a maximum total task cost attribute.

1 19. A storage medium having stored therein a plurality of programming
2 instructions that are machine executable, wherein when executed, said instructions
3 operate to receive a first and second subtask of a task, dispatch the first subtask to
4 a first human for performance by said first human, receive a first result from said first
5 human for said first subtask, and generate a result for said task based at least in
6 part on said first result.

1 20. The storage medium of claim 19, wherein said instructions, when executed,
2 operate to decompose a task to be performed into at least a first and second
3 subtask, in lieu of receiving a first and second subtask of a task.

1 21. The storage medium of claim 19, wherein said instructions, when executed,
2 further operate to dispatch said second subtask to a second human for performance
3 by the second human, receive a second result from the second human for said
4 second subtask, and generate the result for said task further based on said second
5 result.

22. The storage medium of claim 21, wherein said instructions, when executed, further operate to decompose said task into at least said first, said second, and a third subtask; perform said third subtask producing a third result; and generate the result for said task further based on said third result.

23. The storage medium of claim 19, wherein said instructions, when executed, further operate to perform said second subtask producing a second result, and generating the result for said task further based on said second result.

24. The storage medium of claim 19, wherein said human is one of college educated, at most high school educated, at most elementary school educated, and not formally educated.

25. The storage medium of claim 19, wherein said subtask is one of text and speech.

26. The storage medium of claim 19, wherein said result is one of text, numbers, and tuples.

27. The storage medium of claim 19, wherein said task is one of text classification, image comparison, image processing, speech comparison, speech recognition, conversion of speech into text, and comparison of music samples.

28. The storage medium of claim 19, wherein said task is associated with one or more attributes, wherein the attributes include an accuracy attribute, a security attribute, and a timeout attribute.

29. The storage medium of claim 28, wherein said instructions, when executed, further operate to dispatch said first subtask to N1 - 1 additional humans to perform said first task, and said accuracy includes one of a majority govern, and at least N2 agreed results, wherein N2 and N1 are integers, with N1 greater than N2.

30. The storage medium of claim 28, wherein said security includes one of a strict security level, a lax security level, and no security level.

31. The storage medium of claim 19, wherein said task is associated with one or more attributes, wherein the attributes include a maximum time to be spent on a task, a maximum cost to incur per task, and a maximum total cost for the task.

32. An apparatus comprising:
a storage medium having stored therein a plurality of programming instructions that are machine executable, wherein when executed, said instructions operate to receive a first and a second subtask of a task, dispatch the first subtask to a first human for performance by said first human, receive a first result from said first human for said first subtask, and generate a result for said task based at least in part on said first result; and
a processor coupled to said storage medium to execute said instructions.

33. The apparatus of claim 32, wherein said instructions, when executed, further operate to decompose a task to be performed into at least a first and a second subtask, in lieu of said instructions operate to receive a first and a second subtask of a task.

1 34. The apparatus of claim 32, wherein said instructions, when executed, further
2 operate to dispatch said second subtask to a second human for performance by the
3 second human, receive a second result from the second human for said second
4 subtask, and generate the result for said task further based on said second result.
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1 35. The apparatus of claim 34, wherein said instructions, when executed, further
2 operate to decompose said task into at least said first, said second, and a third
3 subtask; perform said third subtask producing a third result; and generate the result
4 for said task further based on said third result.
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1 36. The apparatus of claim 32, wherein said instructions, when executed, further
2 operate to perform said second subtask producing a second result, and generating
3 the result for said task further based on said second result.

1 37. The apparatus of claim 32, wherein said human is one of college educated,
2 at most high school educated, at most elementary school educated, and not formally
3 educated.

1 38. The apparatus of claim 32, wherein said subtask is one of text and speech.

1 39. The apparatus of claim 32, wherein said result is one of text, numbers, and
2 tuples.

1 40. The apparatus of claim 32, wherein said task is one of text classification,
2 image comparison, image processing, speech comparison, speech recognition,
3 conversion of speech into text, and comparison of music samples.

1 41. The apparatus of claim 32, wherein said task is associated with one or more
2 attributes, wherein the attributes include an accuracy attribute, a security attribute, a
3 timeout attribute, a maximum time for a task attribute, a cost per task attribute, and
4 a maximum task cost attribute.

1 42. The apparatus of claim 41, wherein said instructions, when executed, further
2 operate to dispatch said first subtask to $N1 - 1$ additional humans to perform said
3 first subtask, and said accuracy includes one of a majority govern, and at least $N2$
4 agreed results, wherein $N2$ and $N1$ are integer number with $N1$ greater than $N2$.

1 43. The apparatus of claim 42, where said instructions, when executed, further track
2 the accuracy of the humans.

1 44. The apparatus of claim 42, where said instructions, when executed, further take
2 into consideration the accuracy of the humans when generating the result.

1 45. The apparatus of claim 41, wherein said security includes one of a strict
2 security level, a lax security level, and no security.